MT6070/8070/6100/8100 i series

Installation Instruction

1 Installation and Startup Guide

This document covers the installation of MT6000/8000i Series HMI, for the detailed specifications and operation, please refer to Datasheet and EasyBuilder 8000 User Manual.

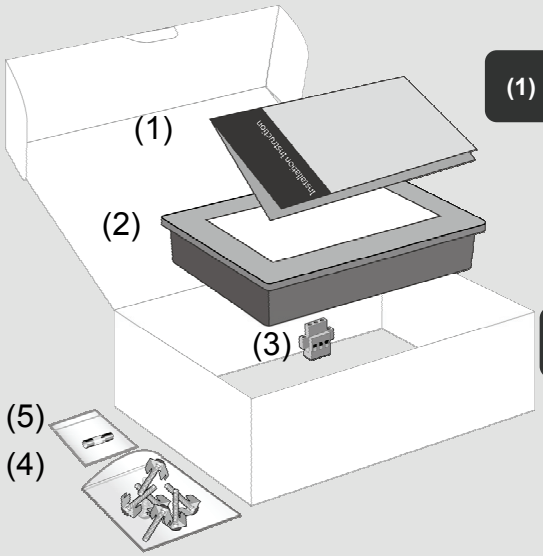
Install Environment:

NEMA Rating	MT6000/8000i Series HMI is Nema 4X rated.
Electrical Environment	The MT6000/8000i Series has been tested to conform to European CE requirements. This means that the circuitry is designed to resist the effects of electrical noise. This does not guarantee noise immunity in severe cases. Proper wire routing and grounding will insure proper operation.
Environmental Considerations	(1) Make sure that the displays are installed correctly and that the operating limits are followed. .Avoid installing units in environments where severe mechanical vibration or shocks are present. (2) Do not operate the unit in areas subject to explosion hazards due to flammable gases, vapors or dusts. (3) Do not install the unit where acid gas, such as SO2 exists. (4) This device should be mounted in the vertical position and for use on the flat surface enclosure. (5) Conform to UL508 (ISBN 0-7629-0404-6) machine safety for use in Pollution Degree 2 Environment.

2 Unpacking the Unit

Unpack and check the delivery. If damage is found, notify the supplier.

NOTE:
Place the operator panel on a stable surface during installation. Dropping it or letting it fall may cause damage.



(1) Installation Instruction, 2-sided A4 *1

(2) MT6000/8000i HMI *1

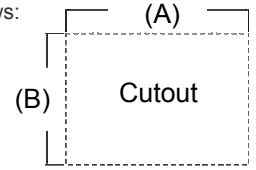
(3) Power Connector *1

(4) Brackets & Screws V2.1 *1 pack

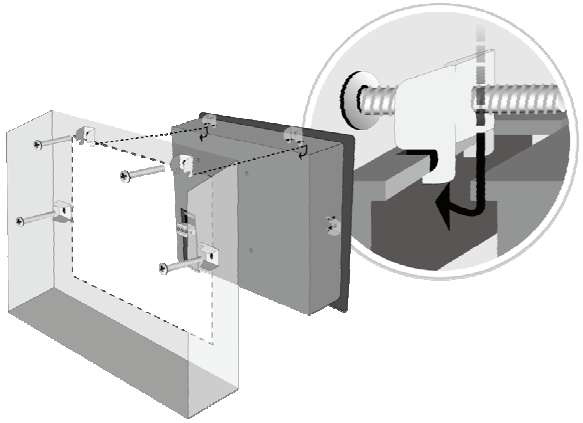
(5) Fuse 1.25A/250V 5*20mm *1

3 Installation Instructions

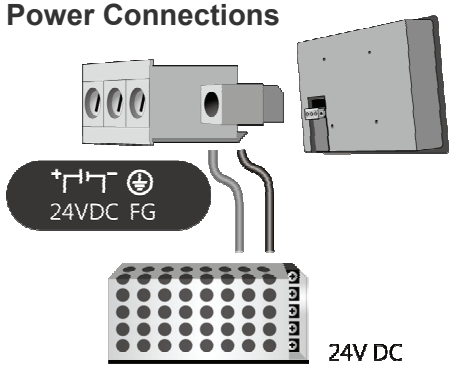
Secure the operator panel in position, using all the fastening holes and the provided brackets and screws:



Type	A(mm)	B(mm)
MT6070iH	192	138
MT8070iH	192	138
MT6100i	259	201
MT8100i	259	201



4 Power Connections



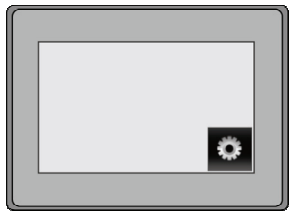
NOTE:
1. Connect positive DC line to the '+24V' terminal and the DC ground to the '0V' terminal.

2. Please do not connect HMI with PLC and PC simultaneously to prevent potential difference from destroying USB ports of HMI and PC.

To make a connection, strip about 3/8" of insulation off the end of the wire, turn the connector screw counterclockwise until the gap is wide open, insert the wire all the way in, and turn the screw clockwise until it's tight.

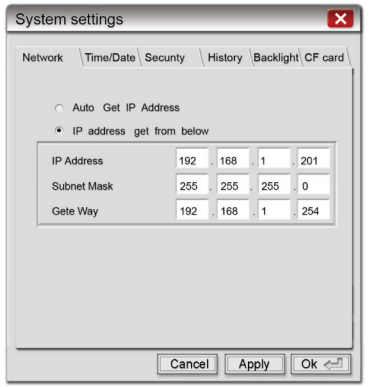
5 System Settings

When HMI powered up and displays image, click the system setting button.
(Default System Password: 111111)
It is necessary to connect the HMI to your network through a RS-45 cable.



(Note 1: For the details of HMI DIP SW function settings please refer to Part 8 in this guide.)

Go to the Network tab, you may choose to auto get DHCP IP, or designate your own IP.

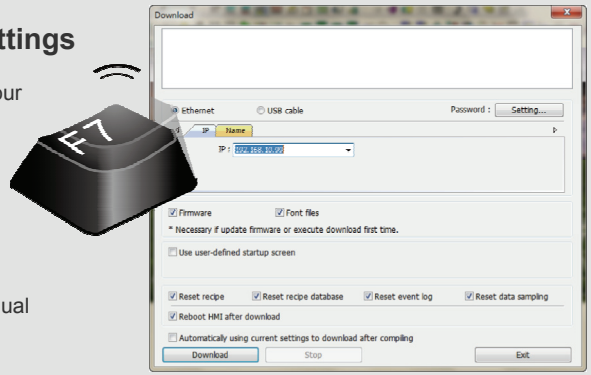


6 EasyBuilder 8000 Software Settings

Launch EasyBuilder 8000 software, select your project file, press F7 shortcut key to open the download dialog box:

Select Ethernet > IP tab > Enter your HMI IP > Click Download to download this project file to HMI.

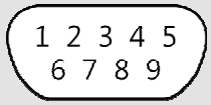
(Please refer to EasyBuilder 8000 User Manual for software operation details)



7 Communication Connections

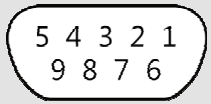
NOTE:
1. COM1 [RS232] RTS/CTS & COM3 [RS232] can't be used simultaneously.
2. COM1 [RS485] / COM3 [RS485] with isolation protection.

COM1 / COM2 [RS232]



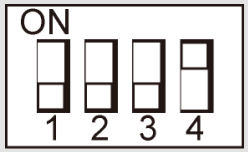
PIN#	Symbol	COM1 [RS232]	COM2 [RS232]
1	Not used		
2	RxD	Received Data	
3	TxD	Transmitted Data	
4	TxD		Transmitted Data
5	GND	Signal Ground	
6	RxD		Received Data
7	RTS	Ready to send output	
8	CTS	Clear to send input	
9	Not used		

COM1 / COM3 [RS485]
COM3 [RS232]



PIN#	Symbol	Com1 [RS485]2w	Com1 [RS485]4w	Com3 [RS485]	Com3 [RS232]
1	Rx-	Data-	Rx-		
2	Rx+	Data+	Rx+		
3	Tx-		Tx-		
4	Tx+		Tx+		
5	GND	Signal Ground			
6	Data-			Data-	
7	TxD				Transmit
8	RXD				Receive
9	Data+			Data+	

8 DIP SW Settings



SW1	SW2	SW3	SW4	Mode
ON	OFF	OFF	**ON**	Touch Screen Calibration Mode
OFF	**ON**	OFF	**ON**	Hide HMI System Setting Bar
OFF	OFF	**ON**	**ON**	Boot Loader Mode
OFF	OFF	OFF	**ON**	Normal
OFF	OFF	OFF	OFF	Not supported

CAUTION

NOTE: Make sure that all local and national electrical standards are met when installing the unit. Contact your local authorities to determine which codes apply.

Power
The MT6000/8000i can be powered by DC power only, voltage range: 24±20% Volts DC, compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 2A.

Fusing Requirements
If the display does not come on within 5 seconds of power up, remove power. An internal fuse will prevent damage if the polarity of the DC power is incorrect. Check wiring for proper connections and try to power up again.

High Voltage
An Internal fuse will prevent damage for over voltage condition however it isn't guaranteed. DC voltage sources should provide proper isolation from main AC power and similar hazards.

Emergency Stop
A Hard-wired EMERGENCY STOP should be fitted in any system using an MT6000/8000i to comply with ICS Safety Recommendations.

Supply Voltage Condition
Do not power the MT6000/8000i and inductive DC loads, or input circuitry to the controller, with the same power supply. Note: The 24 VDC output from some controllers may not have enough current to power the MT6000/8000i.

Wire Routing
a. Wire lengths should be minimized (Max: 500m shielded, 300m unshielded).
b. Wires should be run in pairs with a neutral or common paired with a hot or signal line.
c. If wiring is to be exposed to lightning or surges, use appropriate surge suppression devices.
d. Keep AC, high energy, and rapidly switching DC wiring separate from signal wires.
e. Equip ungrounded DC supplies with a resistor and capacitor in parallel to earth ground.
This provides a path for static and high frequency dissipation. Typical values to use are 1MOhm and 4700pF.

DANGER

Hardware Considerations
The system designer should be aware that devices in Controller systems could fail and thereby create an unsafe condition. Furthermore, electrical interference in an operator interface can lead to equipment start-up, which could result in property damage and/or physical injury to the operator.
If you use any programmable control systems that require an operator, be aware that this potential safety hazard exists and take appropriate precautions. Although the specific design steps depend on your particular application, the following precautions generally apply to installation of solid-state programmable control devices, and conform to the guidelines for installation of Controllers recommended in NEMA ICS 3-304 Control Standards.

Programming Considerations
To conform with ICS Safety Recommendations, checks should be placed in the controller to ensure that all writable registers that control critical parts of plant or machinery have limit checks built into the program, with an out-of-limit safe shut down procedure to ensure safety of personnel.

GME680700_MT6/8070iH2/iH3_MT6/8100iV2_Installation_120509

Limited Warranty

This product is limited warranted against defects in design and manufacture. The proven defective product will either be repaired or replaced, at Weintek's discretion. This warranty shall not cover any product which is

(a) Out of warranty period which is 1 year from the date of purchase.
(b) Damage caused by Force Majeure, accident, negligence, improper installation or misuse.
(c) Product has been repaired or taken apart by unauthorized technicians.
(d) Products whose identification markings have been removed or damaged.